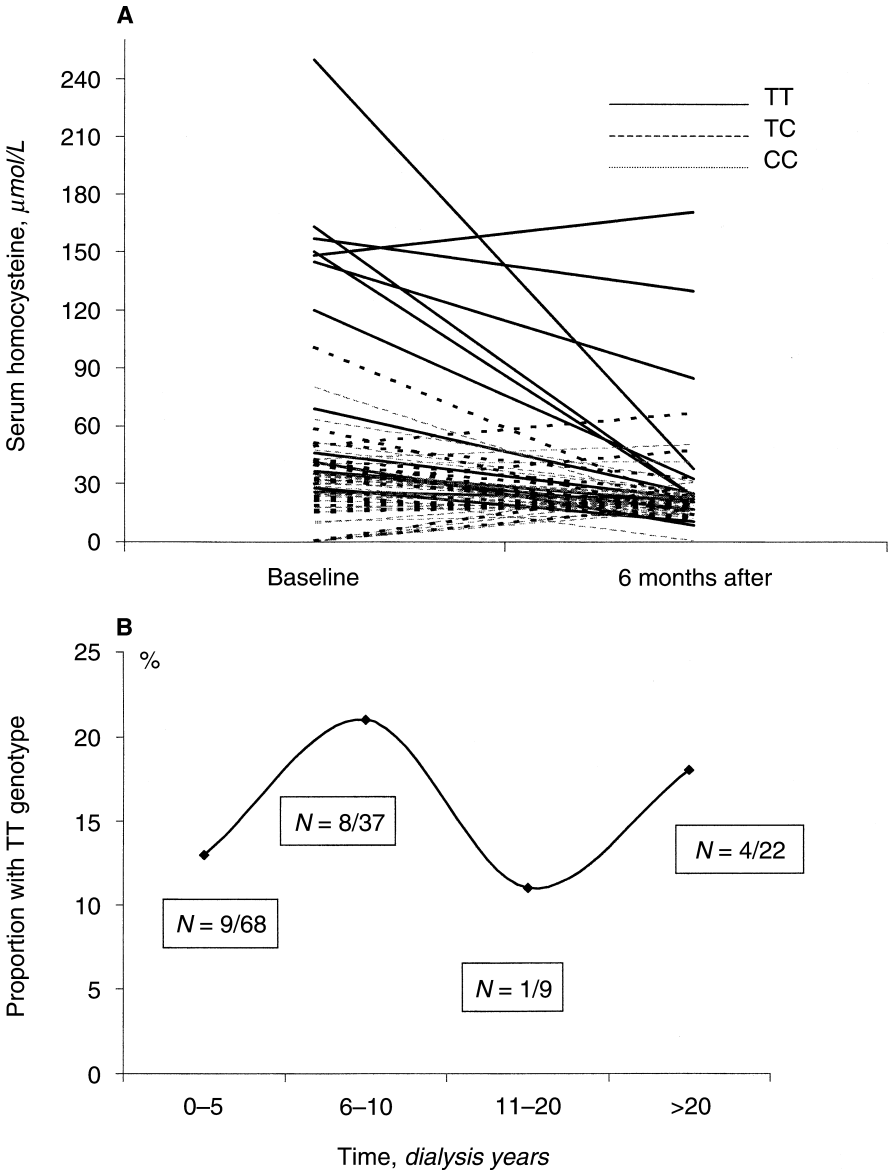

Fig. 1. Serum homocysteine values. (*A*) In 136 white patients on chronic dialysis (85 men, 51 women, age, 61 ± 14 years) at baseline (before any vitamin supplementation) and 6 months after vitamin supplementation (vitamin B_{12}, 1000 to 3000 μg/week plus folic acid 15 mg/week). Patients bearing the TT genotype (N = 22; 16%) and never treated with vitamin therapies showed outstandingly higher serum homocysteine values as compared with patients with TC (N = 67; 49%) and CC (N = 48; 35%) genotypes. (*B*) Proportion of study patients by dialysis period in 136 white patients (85 males, 51 females, age 61 ± 14 years) in whom the duration of dialysis was 8.3 ± 8.4 years (minimum 0.6 year, maximum 33 years). Dialysis period is the year-subgroup of duration of dialysis. The percentage of TT homozygous in those with duration of dialysis of greater than 20 years was higher (18%) than in those with duration of dialysis <5 years (13%).

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Reply from the Authors

Canavese et al were concerned (1) how to interpret the surprising association of lower homocysteine and cardiovascular comorbidity, (2) reconciling the difference in survival findings from our study and their earlier study, and (3) the cost benefit of genetic versus phenotypic screening.

The finding that higher homocysteine measured at baseline was associated with improved survival surprised us as well [1]. The epidemiologic findings of a risk factor having an apparently opposite association with disease in end-stage renal disease (ESRD) than it does in the

general population has been demonstrated for body size [2] and serum cholesterol [3] and has beeen postulated to be due to malnutrition [3]. We agree with Canavese et al that a great deal of research is still necessary regarding the biological mechanisms of homocysteine metabolism in patients with ESRD and their relationship to cardiovascular risk.

The finding of differing TT genotype prevalence over years of dialysis reported in these two studies is not irreconciliable. There may be other differences in the design of the studies that might explain variable risk estimates, including clinical status, sample size, measurement issues, and race/ethnicity composition. We intend to examine follow-up data from our study and agree that experience reported from other centers is greatly needed.

Routine screening of either homocysteine or genetics in not routinely recommended. A professional organization weighing the merits of such a clinical policy should take into consideration the cost-effectiveness of the test and associated interventions. In our clinic, the costs of such tests are significantly lower than those mentioned by Canavese et al.

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Daily hemodialysis and nutritional status

To the Editor: A switch from conventional hemodialysis (CHD) to daily hemodialysis (DHD) has been found to improve nutritional status of hemodialysis patients [1]. This observation by Galland et al needed to be confirmed. We, too, evaluated the effect of a switch from CHD (3×4 hours/week) to DHD (6×2 hours/week), using bioelectrical impedance analysis (BIA); we also observed a dramatic improvement in patients' lean body mass.

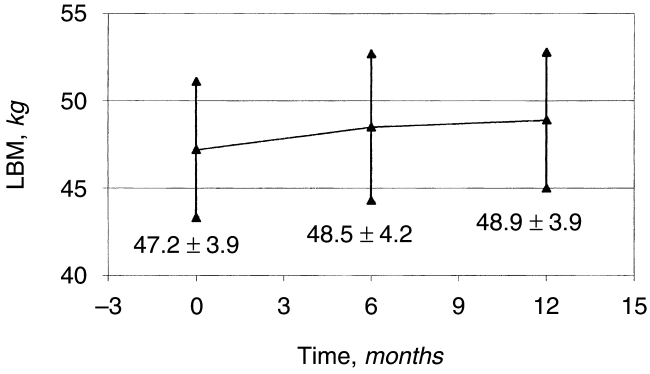

Fig. 1. Time trends in evolution of lean body mass (LBM) after switch from conventional to daily hemodialysis in 7 patients with a 12-month follow-up. It significantly increased within the first 6 months ($P < 0.02$), and remained stable thereafter. Value at t_0 represents the average between the values obtained at times -3 and 0, respectively. Mean weekly ($\pm$ SEM) standard Kt/V [2] increased from 2.22 $\pm$ 0.13 at baseline to 3.25 $\pm$ 0.20 at 12 months ($P < 0.001$).

Fourteen volunteer patients were evaluated during 3 months on CHD and 12 months on DHD. The lean body mass was evaluated at -3, 0, $+6$ and $+12$ months, respectively. Five patients were excluded (renal transplantation in the first 6 months ($N = 4$), incomplete data ($N = 1$); data from the nine patients with 6 months DHD follow-up (six men, three women; 61 years old, range: 30 to 76 years), on CHD (five at home, three in a low-care unit, one in hospital) for 63 months (range: 8 to 137 months) was analysed by ANOVA for repeated measures with F or Friedman tests, as appropriate.

The lean body mass (mean $\pm$ SEM) increased ($+1.3 \pm 0.4$ kg) during the first 6 months ($P < 0.008$) of DHD, while total body weight remained unchanged. After 6 months, two more patients were withdrawn (renal transplantation and aortic valve replacement, respectively). The lean body mass evolution of the remaining seven patients is presented (Fig. 1).

Based on these observations, a switch to DHD could be proposed to CHD patients with poor nutritional status. Further studies, including a larger number of patients, are required to confirm these encouraging results.

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